anti-TNBC agent-6

Cat. No.: HY-158108

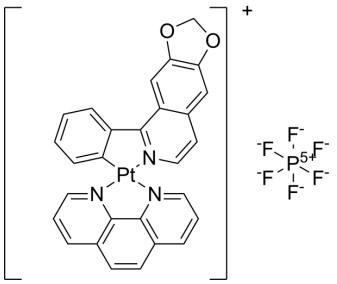
Molecular Formula: $C_{28}H_{18}F_6N_3O_2PPt^-$

Molecular Weight: 768.51

Target: Autophagy; Ferroptosis; Reactive Oxygen Species

Pathway: Autophagy; Apoptosis; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

anti-TNBC agent-6 (compound pt-3) is a potent anti-TNBC agent. anti-TNBC agent-6 shows cytotoxic activity. anti-TNBC agent-6 induces autophagy and ferroptosis. anti-TNBC agent-6 enhances intracellular ROS accumulatio. anti-TNBC agent-6 shows anti tumor activity and has the potential for the research of breast cancer[1].

In Vitro

anti-TNBC agent-6 (compound pt-3) (48 h) shows cytotoxic for MDA-MB-231, MCF-7, B16-F10, SK-OV-3, WI-38 cells[1].
anti-TNBC agent-6 (2 μM; 0, 12, 24, 36, 48 h) induce autophagy by increases the expression of Beclin-1, LC3-II in a time dependent manner in MDA-MB-231 cells[1].
anti-TNBC agent-6 (2 μM; 0, 12, 24, 36, 48 h) induces ferroptosis by decreases the expression of GPX4 in a time dependent manner[1].
anti-TNBC agent-6 (1, 2 μM) increases MDA content in MDA-MB-231 cells in a dose dependent manner[1].
anti-TNBC agent-6 (2 μM) enhances intracellular ROS accumulation and increases the labile iron pool (LIP) within cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay[1]

Cell Line:	A549, A549/CDDP cells
Concentration:	0-28 μM
Incubation Time:	48 h
Result:	Showed cytotoxic activity with IC_{50}s of 2.84, 4.12 μM for A549, A549/CDDP cells, respectively.

Western Blot Analysis[1]

Cell Line:	MDA-MB-231 cells
Concentration:	2 μM
Incubation Time:	0, 12, 24, 36, 48 h
Result:	Increased the expression of Beclin-1, LC3-II in a time dependent manner.

In Vivo

anti-TNBC agent-6 (10 mg/kg; i.p.; on days 0, 3, 6, 9, 12, 15, and 18) shows anti tumor activity in MDA-MB-231 xenograft model[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	25 g, 5 weeks, female KM mice (MDA-MB-231 xenograft model)[1]
Dosage:	10 mg/kg
Administration:	I.p.; on days 0, 3, 6, 9, 12, 15, and 18
Result:	Significantly inhibited tumor growth compared to the vehicle controls, elicited an inhibition rates of tumor growth (IRT) as high as 65.3%.

REFERENCES

[1]. Wang FY, et al. Cycloplatinated (II) Complex Based on Isoquinoline Alkaloid Elicits Ferritinophagy-Dependent Ferroptosis in Triple-Negative Breast Cancer Cells. J Med Chem. 2024 Mar 25.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA